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Nature and epistemological significance of the idea of Necessary Connection, and the Metaphysical Form under which it is realized.

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Metaphysics

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Introduction.

Necessary connection appears under two forms,- that of ideas of reason, and that of things. Of the first little need be said. Reason finds itself in a definite setting of necessity. Its peculiar activity is a process of uniting and disuniting according to laws which it accepts as absolutely binding upon it. Its conclusions find their validity in being reached upon grounds of necessity. The deepest, most essential characteristic of intelligence is the unity at the center, the unity of a system through necessary connection. Hence the significance of all striving to reduce the manifold to system, to reach a world of truth. The idea of necessary connection is at the basis of such ideas as, power of ideas, necessity of truth, and of ideas; law, order, system, universe. Through this necessity the individual is raised above his individualism and constituted an intelligence. Through it he is made partaker in a universe of reason. But he is bound up in necessity thereby. But at the same time his highest end as intelligence is found in the ceaseless striving to discover this necessity wherever it exists, and in surrendering himself to it. This is the last motive of all striving after ideals, after worths of reason, over against which thought stands utterly powerless to reject or to alter.

But intelligence finds itself in a setting of reality, also. It is bound up in a system of interacting things, a real universe. How it could exist apart from this, and what it would be under such condition, may be a matter for speculation, but we have no knowledge upon the subject. The indisputable fact is: the idea of a real world of things constitutes an essential element in the content of intelligence, as we find it, and with the reality of this world begins the interests of life. And the one fundimental principle involved in such a universe, the one bond which makes a mere aggregate into a whole, a one, is that of necessary connection.

The epistemological significance of the idea of necessary connection in this latter sense, was acknowledged by Hume, even when rejecting it as a valid metaphysical principle. "On it are founded all our reasonings concerning matter of fact or existence. The only immediate utility of all sciences is to teach us, how to control and regulate future events by their causes. Our thoughts and enquiries are, therefore, every moment employed about this relation."[1] But Kant probed deeper and brought to light a far more important significance. Before

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1. Hume's - Enquiry. Green + Grose III, p 63.

man becomes ratiocinative, before he attempts to control and regulate future events through their causes, or gain assurance of objects removed from present testimony of memory or sense, is the principle active, as a mental contribution to the synthesis we call experience. We have no things to observe until the mind constructs these upon the principle of necessary connection.

Notwithstanding this essential bearing upon knowledge, the idea has its difficulties and has been subject to much adverse criticism. As ordinarily conceived it is not always free from contradictions. Besides we have no proper knowledge of the relation it represents. Hume pointed out clearly that neither inner nor outer perception will reveal it. We have no experience of it. The real relation ever evades us and leaves merely succession in our grasp. But this fact no longer is offered as valid ground for rejecting the relation. One would be loath to admit that all our ideas are but copies of our impressions, nowadays. Also, we are grown accustomed to the thought that the characteristic of the absolute and ultimate must be necessity, and not transparency to our insight, and hence no longer reject the relation because of the mystery which clothes its existence. The two tests which reason today sets up, asks: is the idea essential to the unity of intelligence? and, is it, as conceived, thinkable, i.e. is the idea, as held, free

from contradiction? If these tests may be fully met, the relation expressed in the idea must be posited as real.

The problem here presented is a metaphysical one, and is to be solved upon a priori grounds. Science can give no light, for it must assume the relation as valid before it can take a step. Empiricism in every form is excluded. The question concerns necessity, and experience can never give more than fact, and remains ever at the periphery, in the realm of phenomena. Necessity exists for intelligence as intelligence, and the ground for affirming it must be sought in the nature of intelligence itself.

Two methods here suggest themselves, by which the idea may be investigated upon metaphysical ground. By following the first one would be led to take the idea as found in experience, develop its implications, eliminate all contradictions and raise the ideas involved to consistent concepts. After this was done, he would cast about for sufficient grounds upon which he could establish the objective validity of the idea. This process is removed by the second method. First, that is sought which is expressed in the idea, a thought-content which must be viewed in the light of its relation to intelligence, and in which relation must be found the ground upon which the decision concerning the objective validity of the idea should find justification. After this

essential content which the idea aims to express is located, and its bearing upon the interests of intelligence is fully shown, then the task remains to win this content into adequate conceptual expression. Of the two methods the first appears to be the more direct and natural, but the second is here chosen for reasons which will appear in the course of the investigation. The problem leads at once into the very depths of metaphysics, and involves the fundamentals of a complete world-view. It would be an idle task to seek a solution of the problem without first grounding its presuppositions. As Kant pointed out, the difficulties here involved are the same ones we meet in other ideas, and must be met in toto, not singly and by fragments.

Consequently the first part of the following investigation must take on the nature of a prolegomena to a theory of necessary connection. The second will seek to carry forward the results thus attained by logically fixing the content of the idea of necessary connection in its metaphysical form. The conclusion will sum up the results in view of their bearing upon the problem of knowledge.

Prolegomena

to a theory of the necessary connection of things.

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The ground characteristic of a datum is its factualness. It is something indisputably given. It stands therefore absolutely final, behind which mind cannot pass. Thought first begins in dealing with facts, it finds them on the ground when it appears. Thought has never been able to create one. All its products fail to attain this essential quality. All the skill of dialectics could never deduce a fact. And when one is actually given no amount of mental effort could ever think it out of existence. It is this utter powerlessness of reason over against fact, to create, alter or destroy, which grounds its confidence in a datum as an absolute point of departure in search of an adequate world-view. It is simply there, and there in spite of us.

Another essential element of a datum is definite thought-content. The universe is a concerted thought content to intelligence. And every fact in this universe is likewise a concerted thought-content. Its factualness makes out its reality; its content gives it significance for intelligence. This content may be variously interpreted, but it ever remains one and the same. It is a definite thought, caught in a factual setting. Reason, when modest, never ventures

to meddle with the essential content of the fact, but seeks merely to reach insight into it, and win it into rational form. Its activities are restricted to the process of ordering and arranging these contents as they are individually intuited. It brings into new relations and constructs new syntheses, but its creative work ends with this.

These two elements, although considered separately for convenience of thought, are nevertheless in themselves mere abstractions. They have no reality, they constitute in themselves no datum. It is only in abstraction that they stand over against each other as matter and form. There is no real severance of thought and reality. All the reality we know is thought-reality. Any other does not exist for us. Reflection begins with the factual union of these two elements and is spared the hopeless task of bringing them together. Again, it has been too often overlooked that the abstractions, "form" and "content", are incomplete, taken singly. They are but partial abstractions, nor could the process of abstraction be completed without both disappearing. One involves the other, just as subject involves object and vice versa, and neither may be fully abstracted from the other.

But apart from this, and returning to the concrete. A fact losing its thought-content would be unthinkable and would drop out of existence; and until a thought content had formed a definite factual setting, it would be a mere fiction. The emphasis must be laid upon the affirmation that we have given us definite thought contents ever in process of being realized. Not the contents as fixed thought elements, which may be taken up into criticism as so many independent reals. The real is the ceaseless process of realization of these contents, a real factual process. It is a datum even in the indicative mood, present tense.

All philosophizing which takes its point of departure from the concept must therefore fall short of an adequate world-view. The concept has but one essential of a datum, thought content. It has no reality, and from it can no reality come. He who goes out from the concept as a starting point, as Hegel did, will never get beyond the concept. His cunning advance will be mere revolution in a world of fiction. Our world of reality, however, cannot be crowded into concept, much less be reached from concept. This is equally true whether we take concepts as such, or conceptual

thinking as an actual process. While conceptual thinking is concrete and factual, its results are purely individual and bear the marks of relativity. It is the individual's attempt to give form and expression to something deeper and more original. Consequently the concept is second and not first. It is distinctly representative in character. Although we can deal with reality in and through concepts only, still the essential and the real is not in them, but merely represented by them. These original contents are preconceptual, and are of the nature of fact. They constitute the essentials of a datum.

Nor can the starting point be ideas, simple or complex. These are given a fictitious reality and drawn into criticism as such. As products of the conscious process they have not the smallest particle of reality. Only as they constitute factors in a process have they actuality, and even then it is the process itself that exists and not these ideas as such. Much needless criticism has been expended because of the failure to press back for an indisputable datum for a sure basis. Ideas have been taken up into criticism as ultimate data, criticised and rejected as faulty. If these are ultimate there is no sure

footing for convictions. It makes no difference if these be innate ideas, intuitions, a priori truths, first principles &c, so long as these are viewed as definitely fixed thought contents. Thought contents they are certainly, but even in process of becoming realized in intelligence, and it is this factual element which, though most often overlooked, must be constantly emphasized.

Nor can scientific experience constitute a datum. There is in experience that which is not given. Such experience holds together by virtue of causal efficiency, and this is a central problem of philosophy and is therefore not to be quietly assumed at the start. Consequently "things" constitute no part of our datum. Nor is phenomena as such given.[1] This involves the correlate of a Ding an sich. An adequate world-view may demand the positing of causes beyond the individual process, but these causes cannot be looked

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[1] "Es sind uns Dinge ausser uns befindliche Gegenstände unserer Sinne gegeben, allein was sie an sich selbst sein mögen, wissen wir nicht, sondern kennen nur ihre Erscheinungen, die Vorstellungen die sie in uns wirken, indem sie unsere Sinne afficiren. Demnach gestehe ich allerdings, dass es ausser uns Körper gebe, etc. - Kant, Kants Prolog. § 37.

upon as constituting any part of a datum. Rather, if such causes be posited it must be the ground or motive for the positing which is given.

Herbart commits the same logical error in assuming that reality is given mediately in phenomena. "So viel Schein, so viel Hindeutung auf Sein"[1]. But Schein as Schein is not given. Besides what is given mediately is not given at all, but is deduced. The affirmed nexus, however, is the theme of dispute and is not to be assumed as unquestionably given at the start. The causal principle is involved and is assumed as valid.

Nor is cosmic change an element in our datum. Nothing cosmic is given. The cosmos is to be reached from the datum. The change as given is strictly individual, is a ground characteristic of the individual consciousness viewed as process. As such it is undeniable, and may furnish sufficient ground for advancing beyond solipsism. But strictly taken, cosmic change and cosmic reality fall entirely outside the limits of an indisputable datum.

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1. Karl. Herbart Allg. Metaph. p. 130-14 - also p 216 Einleit. in d. Phil. o §169 Allg. Met.

The individual conscious process is our datum. As process it is metaphysically real. Upon it as process metaphysics must build. It is conscious process, i.e. it is thought-content in constant process of becoming realized by a conscious subject. But the conscious subject is individual. Nothing is affirmed here of the nature of the subject, nor of the validity of the thought contents. This is later to be determined. The undisputed fact is a constant realization of Thought-contents by an individual subject. How this can be, we know not. The answer it is no fiction. It is the necessity of reality, existence itself.

Holding strictly to this datum, our entire world is reduced to a series of objects in successive correlation with a subject. These objects rise in temporal succession and pass out of the correlation, but the subject remains one and the same. The objects are spatial, have form, position and distance, but no relation exists between these objects other than those of space and time. Nor is the subject given by itself, nor the objects by themselves, but both subject and objects in correlation. What the metaphysics of these two factors of the datum may be is not given. If ground be found for a deduction concerning the true nature of these factors apart from the process in which we

find them, such ground must be of the nature of an adequate thought-content indisputably involved in a datum. Holding strictly to the datum the ego is simply an empirically identical subject thinking, feeling, willing, perceiving, ever in activity, ever in correlation with objects which rise and pass away in succession. Concerning the metaphysical nature of these space and time objects, theories may differ, but none will deny their existence as correlatives with a subject in an individual conscious process, and that their grouped determinations are space and time. The individual ego or subject is powerless to create or destroy these objects. They are, and are in spite of him. He is conscious of possessing the power of facilitating the rise of these objects into the correlation, and of dismissing them, or some of them, from the same, but with this his freedom ends. The two are irreducible and yet factually involve each other. Both are indisputably given, and given together.

Two kinds of original thought contents, differing from space and time objects, also differing from each other, are definite thought quantities which will be termed worths and motives. Both are facts of our datum, are definite

thought content to even in process of being realized in the individual consciousness. Both are absolutely independent of the individual subject. They rise into consciousness without his assistance and continue to exist even in spite of him. He has no power to create, alter or destroy them. He may ignore their existence or refuse to win these contents into conceptual clearness, but they are completely beyond his power as original elements in the datum. They are as directly involved in the datum as the conscious subject itself. They rise out of the necessity of the process itself and find in the process both cause and ground for their constant realization. While they may be considered apart from the process for convenience of thinking, they are, factually, modes of one original process, our datum. These worths and notions however have inner grounds of difference. We notice the worths first.

The first characteristic to point out is that quality which makes the term worth appropriate. This is the unconditioned significance of these contents for intelligence. They are absolute and ultimate for mind. They give intelligence its nature and law. The question of validity cannot be raised until these worths are acknowledged as valid. Consequently their validity cannot be grounded in anything beyond them.

selves. Their validity cannot be tested, or even questioned, for they themselves are the precondition of all testing. Intelligence begins in the acknowledgement of them as valid thought contents, and would collapse were a consistent skepticism concerning them possible. It is their absolute character, this quality of being in themselves self-sufficient while being normative for all else, which constitutes them worths. What these worths are, will be noted more at length the later. Here it is sufficient to point out that they are the worths involved in all judgements of truth and goodness, and perhaps of beauty also.

The second general characteristic of these worths has already been pointed out. It is their factual character as distinguished from mere conceptual. They are not logical, ethical or aesthetic laws or principles. They are far more original, and have the reality of a metaphysical process. All laws, formulas, principles, norms etc are at best but individual expressions for these worth-contents. Perhaps the essential contents are reproduced in the conceptual formulas, and perhaps not. The worths are the original and the essential. They have real, indisputable existence, as a special mode of manifestation of our datum. Their factualness, and the ultimate significance of this contents

for intelligence constitutes the ground upon which reason may judge them absolutely valid for all thinking.

A full realization of the essential content of these worths, however, is not at an instant attained. Only slowly and through persistent effort is the individual successful in winning his way from a dim and confused consciousness of these contents to clear and distinct insight into them. He must, therefore, distinguish between the essential contents of the worths, and these contents more or less imperfectly grasped by the individual. But in the individual consciousness, whatever be the degree of insight attained, this spontaneous self-manifestation of worth contents unceasingly continues, and constitutes the essential factors of the intelligence-process. This process of realization of worth-contents continues for years before the reflective self-consciousness of the individual is awakened. This means merely that the individual is an intelligence before he is a self-conscious intelligence. He awakens to find what he is, and what he, by the necessity of his nature, must continue to be. These endowments he does not win or derive from one source or another. He and they are in some opaque sense inseparably bound up in a factual union, neither being responsible for the existence

or the given nature of the other. The creative work of the individual does not effect these essential contents. They continue to be what they have been. It is the individual who changes as he wins deeper insight into the true nature of the worths.

Accompanying this deepening insight proceeds simultaneously the creation of forms or expressions for these contents. This creative process is at first spontaneous, but the will of the individual assumes direction of it in maturer years. Its products, the ideas or concepts continue to witness to their purely representative character. Here must be repeated what has been already said in another place. These thought-products considered in themselves are mere abstractions and are not reals. They fall completely outside the category of existence. Their office is purely representative, and the original and essential line deeper. It has already been pointed out that original worth contents must not be confounded with these worths as intuited by the individual. Another distinction must be made. Not all thought content into which we have insight permits itself to be easily formulated in definite thought-expressions. This process of winning thought contents into adequate forms is the more

ending task of philosophy. The ground of this creative process is the nature of intelligence itself. The winning of adequate conceptual expressions and the ordering and systematizing them according to the principle of unity necessary to intelligence, fulfills a peculiar end of intelligence itself, behind which we cannot go. But while this is an end of intelligence, the worth is its necessary fore-condition. This relation is manifested in the entire history of ideas, in the ever deepening insight into the essential contents involved, and the accompanying development of their conceptual expressions.[1] These worth

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1. Hence the principles of Logic, Ethics and Aesthetics have been formulating throughout the entire history of human development. Upon their respective worths as foundations do these sciences rest. Behind them can investigation not pass. They are factually given, constantly in process of being given, as definite thought contents, which human must be laboriously won into the full possession of thinking. The one convincing test of all formulas or principles claiming validity must be the respective worths thereby represented. It is conceivable that ever deepening insight into the essential contents of these worths should make a reformulation of these prin-

ever rising in consciousness, their essential content being more and more clearly intuited, are the ground of a ceaseless critique of the formulations of them already made. The conceptual expression is ever in process of becoming more perfectly representative of the essential contents of the respective worths. Even in Logic, where perhaps these essential contents are at once given in the maximum clearness, there is easily traceable an historical development of the fundamental principles.[1]

Now we must return to the motive as a second element in our datum. When critical reflection is attained it is found that our world of fellow intelligences and of interacting things, up to this time viewed as unquestionably given in knowledge, is a synthesis of the mind, and, strictly taken, the knowledge of its reality constitutes no part of our datum. If we are to hold strictly to what is indisputably given, viz. to our datum, the reality

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ciples is a ceaseless task for philosophy.

1. Kant is sometimes quoted here to sustain the contrary proposition, and yet one need but point out the essential change in the formulation of the fundamental principles of Logic, freeing them of all metaphysical significance, to maintain the thesis that the

of other intelligences must be given up, as well as a real world, and we must fall back to solipsism and a ceaseless flow of objects in a conscious process. By so restricting ourselves to what is actually given we would let all content and meaning, all richness and color drop out of our world. Rather, there would be no world, no universe remaining. Merely a series of span-objects caught up in a temporal succession would be left. Knowledge and all the interests of intelligence would be utterly wrecked.

But notwithstanding the essential bearing of the reality of these fellow-beings and an outer world on the interests of intelligence, the unique ground for affirming their reality is the fact that we find intelligence positing them as real, and ever-and-anon forthwith so positing them. This factual process of positing these realities is indisputably a part of our datum. It saves our knowledge of these realities from being merely a deduction, however sure the grounds might be. Hence too much em-

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essential contents of these logical worths have not been intuited once for all time, but have been rising little by little into a greater degree of conceptual clearness, and that precisely in the period from Aristotle to Kant real advance was made. (L.d.n.Ver. p.13.)

phasis cannot be laid upon the affirmation that this
ceaseless positing is a ground fact of the conscious process,
an essential element of our datum. This positing springs
from the nature of the process itself, as intelligence. It is
a real, concrete mode of a real metaphysical process. It
cannot be detached from the datum of which it consti-
tutes a part. It is as factual as the datum, taken as a whole.
Also, it is even a definite content that is posited, and
although the act of positing, considered as process, is con-
crete change itself, still it has the identity of a process
ever positing one and the same thing. Its formula would
read, A.-A.-A.-A.-A.-A.-..... This positing is not made by
the individual. He finds these realities posited when he
assumes conscious direction of his thought process. They
are undoubtedly real to him before the point of reflection
is reached. The positing is spontaneous, and continues to
be spontaneous in spite of critical doubts. It is grounded
in the nature of intelligence itself, and its significance
and meaning must ultimately be traced back to the sig-
nificance and meaning of intelligence itself. It contin-
ues impelled by motives which rise out of intelligence,
and the ground of validity for it must in the last instance
the right of intelligence to be what it is. He who is not

satisfied with this ground will seek for it in vain elsewhere. In matter essential to intelligence, "what is", is at the same time "what must be." Here reality constitutes necessity.

To ask whether these notions are necessary to intelligence is, therefore, to ask if they constitute essential elements of intelligence as we find it. And this must be made clear. There are two points here to be observed. The positing of these realities is actual, is a mode of activity of the process in which the subject finds himself. In the positing of them, intelligence, as he, the subject, finds it, becomes possible. And second, any attempt to eliminate these notions from intelligence would disintegrate intelligence. The final test, therefore, of these notions must be their essential bearing on the interests of intelligence as a whole.

It must be made clear what is meant here by intelligence. In the first place it is not a quality or any set of qualities of a spiritual substance. Nor is it the nature of mind. Nature is here an abstraction, as well as mind, and fails to tell what intelligence is. Much less is it a set or system of laws and principles. Laws and principles are but the formal expression of a much deeper and more original fact, and this fact is what we seek to know, not its

conceptual expressions. A definition of intelligence per genus proximum et differentiam specificam would a sane man scarcely expect, and yet it must be defined in order to make its bearing upon the present problem clear. This end will be served in pointing out that intelligence must not be viewed as a definitely fixed somewhat, but as a definite thought content even in process of being realized by a conscious subject. These thought contents are worths and motives. The motives constitute that element of intelligence which makes a universe of things and fellow beings necessary. It refers, therefore, always to metaphysical realities. The worths, on the other hand, have no bearing directly upon reals, but are those contents which make out the ideals of intelligence. The ideals of goodness, truth and beauty are these worth contents woven into the possession of the individual intelligence. Not the worths and the motives as such constitute intelligence. As such, they are mere abstractions. What they really are, are worths and motives in ceaseless process of being realized by a conscious subject. The form of intelligence is that of a systematic unity. The elements exist, not in and for themselves, but in and for the whole. The test of the elements is their essential relation to the whole. The unity in the manifoldness, bringing all into system, into oneness, is the defi-

est, most essential characteristic of intelligence. It is absolutely normative for reason. The principle of contradiction is but the formal expression of this fundamental characteristic conceived negatively. The fixedness of intelligence is the identity of these thought-contents constituting a systematic whole. Its unity is the unity of a system. Its development is the deepening insight into the essential contents of its constitutive elements and their relation to the whole. The identity of intelligence must be the identity of a process whose formula is,- A.-A.-A.-A.-A.-A.-A.-.....-. All this conceived and given formal expression may well be termed nature of intelligence, and laws of intelligence, but back behind nature and laws is the original process itself,- intelligence; and when we seek the constitutive elements of it, we must find them to be definite worth- and motive contents even in process of being realized by a conscious subject. Back of this we cannot pass.

Returning now to the motives, we find them constitutive elements of intelligence. They are motives of intelligence not of the individual. The positing is prior to self-consciousness and independent of volition. Positing their reality is not identical with deducing their existence. They are not reached by reasoning, but rather by an original act of the spontane-

cous process in which the individual finds himself. Consequently they are no less essentially given in the datum than the subject itself.

We have seen that motives to posit realities beyond the limit of the individual conscious process constitute elements essential to intelligence. Consequently what intelligence demands, we as individuals must recieve as final. But the subject has been discussed purely formally, thus far. It is not yet made out what elements are necessary to the preservation of the unity of intelligence, and hence we do not yet know which are true motives. These must be taken up and subjected to the test prescribed above, so far as they are involved in the present discussion.[1] But before passing to this examination it must be pointed out that the essential content of these motives must not be confounded with content of realities actually posited. As in the case of the work contents, these motive contents are liable to be

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[1] The determination of the full number of these motives, the winning (of this) of their essential contents into conceptual form, carrying out the implications involved in them, and reducing the whole to system, would be the peculiar task of Metaphysics as conceived from this point of view.

erroniously concieved. Only gradually and by aid of critical reflection are we enabled to separate foreign elements from the true native contents. But long before reflection begins, the positing of these realities has been made. These posita are viewed as undoubted realities until reflection discovers that contradiction is involved in thinking their conceptual contents. To conceive these realities as already posited offends the unity of intelligence. Skepticism would reject them altogether, on this account. But any attempt to do so brings greater confusion to intelligence. Not the positing is offensive but the positing of false contents. Reflection must seek to know the essential contents of these natives in the light of their bearing upon the unity of intelligence. In this process reality is not created, but rather intelligence determines the nature of that which it must look upon as real. In this process the worth formulated in the law of contradiction becomes the negative test of all that is essential to the unity of intelligence. These essential contents are given, but not given into full possession of individual consciousness. They are not given as intuita nor as cogitata, but as intuenda and as cogitanda. Only through reflection does the possession become positum.

Here we must again take up the concept. We have already seen that its office is purely representative. It is an individual creation, and it bears the marks of the individual's limitations. It is perfectly conceivable that the concept may never be freed from the suspicion of imperfectly representing the full, essential content of the original facts. There is no a priori ground for affirming that the concept is, or ever will be an absolutely valid factor in thinking. This is no ground for scepticism, for intelligence is endowed with elements far more original and essential. When these concepts are expressions of worth and motive contents, they must ever be formed and reformed to accord with ever deepening insight. The movement is ever from the worth and the motive at the center out to the concept at the periphery[1].

This being true, it is plain the concept can never be

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[1] Here is concerned all that is essential to Aprioriism, while at the same time the errors into which the doctrine has at times fallen, are avoided. The proper relation to experience is observed, it being no source of these thought contents but the occasion of their rise into individual possession. Also, identity of these contents is provided for while insight and conceptual formulation is variable.

measure of reality, with respect either to its existence or to its metaphysical nature. Rather, this must be the motive itself. It is true we deal with reality only through the concept, but in this case the concept is simply an instrument. The real test or measure remains the motive contents as mediated by the concept. With the increasing perfection of insight into the essential content of these motives we gain no corresponding increase of certainty of the existence of realities. Sufficient for the affirming of this existence is the actual positing, and the essential relation of this positing on the interests of intelligence viewed as a whole. But it is otherwise with respect to the insight into the nature of reality. This must change with the deepening insight into the real contents of the motives. The naive view of the constitution of things, for instance, is essentially different from that held after the mature reflection. But insight into this reality is in both cases the same. The true nature of reality must be graspable by thought. This is clear from the fact that we have no reality outside the individual conscious process except such as are posited by intelligence. And what intelligence posits must be intelligible. Such contents are posited because they are essential to intelligence. These essential motive con-

tents so fast as realized become the possession of conceptual thinking. In conceptual thinking the nature of these posita is overhauled and criticised. It is the workshop where the native contents find application. It is here that contents posita and contents found a nut and are compared, and are made to conform to the other. In this instrumental sense the concept is the measure of reality[1]. In this sense all reality must be thinkable. No reality can be posited that does not bear an essential relation to intelligence, and all that is essential to intelligence is in process of becoming conceptual thought content. To reach the true metaphysical nature of reality, therefore, the essential content of the world must be won into conceptual channels.

Two points must be guarded against misunderstanding. Positing does not make these realities. The realities do not depend upon our positing for their existence. They are posited as really existing; because intelligence demands such existence, they are viewed as actually existing. But the real

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[1] It is only in the sense above given that we can make the concept the measure of reality, and in view of this, namely, of an ever deepening insight into essential native contents, must the ordinary statements on this topic be looked upon as misleading. vid. Hamb. Vol I. p 221.

existence of them and the mind's positing of them as really existing are two different things. The second point concerns the difference between the metaphysical nature of reality and its nature as given in experience. The Concept is wholly incapable of giving more than the metaphysical elements of reality.

But upon what ground may we affirm that certain contents have an essential bearing upon the interests of intelligence, until we have attained complete insight into the essential nature of these contents? We have seen that this insight is ever progressive, and must advance until these elements of intelligence are essentially known. How can we know, then, what notions are true until this process is complete? In answer it must be said: not all that we feel to be essential to intelligence is in full or clear possession of our knowledge. A thought content may be essential to intelligence, and we obscurely realize the fact, without our being able to see wherein it is essential. Thus all are conscious of the binding force of mathematical axioms who cannot, some of them, without repeated reflection, tell wherein the necessity lies. The positive content is not fully in this possession, but they see enough to make the opposite proposition impossible.

This is but saying we are intelligences before we are self-conscious intelligences, and that intelligence apprehends itself as a unity, as a complete whole, before the individual has made clear to himself what is necessary to the conservation of this unity. In this respect the knowledge which we as individuals have attained, is not unlike the arc of a great circle. From the fragment actually in our possession, it is possible to finish the curve and to know that it is a closed one. How this is possible is not clear, but it is certain that the unity of intelligence is conserved by it. Intelligence apprehends that whiel constitutes its essential content before the individual has learned. The process of learning may be conceived as offering an endless task, but this would not affect our certainty of the existence of realities beyond the individual datum. It is not the individual who posits these realities, but intelligence. In passing, therefore, to the closer examination of these motives, two leading questions will rise:- First.- Is the motive in question real, and is it essential to the unity of intelligence? If real then its content is factually posited as existing by intelligence, and is persistently posited. This marks the fundamental difference between the positing by the motive and the deducing by reason. It takes the positing out of the hands of the individual and puts

it solely in the hands of intelligence. If essential, then any attempt to eliminate the content from intelligence would be resented by intelligence, as an act of disintegration. It is by this negative method, by affording intelligence as a systematic unity, that the individual becomes conscious of the essential character of these motive contents. Second: Has the essential content of these motives been worn into conceptual form? is the position the true forerunner? What contents must these posited realities have in order that they may be thought without involving contradiction? This task set before us belongs to metaphysics. So far as the limits of this discussion involve these motives, the remainder of this first part will be devoted to answering the first question. In part second, attention will be given to the second question.

The first motive to be noticed is that which grounds the positing of a real, substantial ego. This motive is only indirectly involved in the present discussion, and consequently will not be noticed at any length. The datum gives us an empirical ego, an empirically identical subject in constant correlation with objects, a unity involved in a synthetic process. Such is the factually given. But intelligence does not stop with this. It posits a substantial unity, a real noumenal ego,

as actually existing and looks upon the phenomenal ego as its manifestation. The "synthetic unity of apperception" is, truly, that which is given, but back of this is a real self, a real substantial ego. Such is the soul as a constant feature of intelligence, and one, in spite of all attempts to hold strictly to the synthetic unity of the datum, the intelligence continues to project. Its reality cannot be demonstrated as Descartes thought. It is no individual projection, however. It is no deduction. Philosophy finds it upon the ground as a real being, and can but consider it as such. The datum gives no direct testimony concerning its reality. But the datum does give us a motive for projecting or positing it, but leaves us to win by reflection and criticism the true nature of it. And although criticism must be active in winning its essential thought content, it cannot meddle with the ground of the positing,- the motive itself.

A second motive, also merely to be touched in passing, is that which prompts and gives significance to the positing of a plurality of intelligences. The datum gives no direct testimony of such existences. Holding fast to the datum we would not be able to transcend solipsism. But the datum furnishes the motive which forever[illegible]

fonite these beings as truly existing. No other ground can be offered for affirming this existence other than the bearing of this reality upon the interests of intelligence. Intelligence as we find it is bound up with the necessity of positing these beings, and we know no other intelligence than that which we have. To deny the reality, therefore, of a plurality of intelligences would bring contradiction into our datum and work knowledge. As to the metaphysical nature of these intelligences it is merely necessary to point out that the ground for determining lies wholly within the limits of the datum.

A third motive we must examine at greater length. The datum, as we have seen, gives us no words of things, but a ceaseless succession of mental objects rising into correlation with the subject and then passing out of it.[1] These objects have two determinations, space and time, i.e. they have form, size and position as well as distance from each other, and rise, continue and disappear in time. But beyond these two determinations, space and time, they,

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[1] For the sake of greater clearness these correlations will hereafter be termed simply "objects"; and therefore to be distinguished from "things" as formed posited, and from "events" in the time formula.

these objects, are not otherwise related. One is not the cause of change in another. There are simply conjunctions of mental phenomena but no connection whatever. The antecedent simply goes before the subsequent and does nothing more. Moreover, these objects are merely factors in the individual conscious process. They have no reality nor signify any reality beyond the limits of the datum.

If these objects are to be more, and mean more than this, intelligence must make them more. If the mind is to be saved from being a mere witness of a meaningless mechanical process of ideas, intelligence must save it by giving these ideas meaning. And if we are to have a world, a cosmos, a common ground of reference between intelligences, intelligence itself must create it. If not, then there is no universe, no knowledge beyond that of a meaningless succession of disconnected mental factors. Intelligence has met the case by positing a world of things. When the true content of the motive for this positing is seen this positum becomes a system of interacting causes. The steps in the act of positing may be considered as follows:-

1.- These mental objects are viewed as phenomena, as effects and causes transcending the datum are posited for them.

2.- Certain of these mental objects are viewed as phenomena

or effects of one and the same cause, and an identical cause is posited for them. In this case the content of these objects is the same but the objects themselves are numerically distinct, being given in different moments of time. Consequently a continuously active cause is posited to ground this repetition of phenomena.

3.- Certain of these mental objects, whose contents, to a greater or less degree, are unlike as given in the different moments of succession are nevertheless viewed as phenomena or effects of one and the same cause manifesting itself at different times in different ways. Thus, form may change while location remains the same; or location may be changed and form remain the same; or again both these remain unchanged but size change, etc. In all these cases the motive leads to the positing of a cause which remains one and the same during successive moments of time & through all changes in manifestation.[1]

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1. We note here two kinds of change. The change given in one datum is the ceaseless rising of objects into correlation with the subject and their passing away. This is merely change within the process from the point of view of the subject. It is the ground fact of the datum, and gives to it the character of a process.

4. These objects, as given in our datum, related only in space and time. They have definite size, form, position and sustain the relation of distance among themselves; also they rise and pass away in temporal order. But nothing further. The mind has furnishes, out of its constitutional capacity to view these objects as more than this, a real bond of connection. Not only are these objects viewed as phenomena, and causes posited for them; not only do these causes continue one and the same under repeated and changing manifestations, but these causes are bound together by a real relation of interaction, thus constituting a system, a cosmos. A real ontological relation is thus involved in the positing, a relation not given in the datum nor reached by deduction. The succession of objects is thus given a deeper significance, the temporal conjunctions and sequences being but the forms under which the real fact of necessary connection appears in experience.

But the change involved in the positing noticed above is not a fact of the datum, but a postulate of the mind. This change of the datum (Factual) is thereby constituted change (Veränderung). This last change is predicated of these mental objects viewed as manifestations of one cause. This change points therefore to this posited abiding one, apart from which it has no meaning. This change of manifestations, must be grounded in a real change in the cause, - another change.

Ho are we from a genuine motive? How we justified in looking upon a real world as a true postulate? Two elements are here involved: ontological reality, and this reality in system. How the mind brings a

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The positing of a world-ground is not an instinctive and spontaneous act of intelligence, as the positing of the existence of the outer world and of fellow beings. Rather, it is the necessary implication of the essential content of these postulates, and when these essential contents are once intuited, intelligence finds the existence of a world-ground as a necessary postulate. But it is a deduction, however, a result which reason itself must reach for itself, not a position which intelligence thrusts upon the individual. It is true the individual process, the datum demands a ground. But not a world-ground. But the individual process is immediately grounded in the world-process, which intelligence has posited. But the idea of a world-process involves the idea of a mediating ground, and if the world-process be posited as real, the reality of the world-ground must be looked upon as involved therein. So long as the world is uncritically viewed as a mere plurality of things, with occasional hypothesis to account for the evidences of interaction, no need of affirming a world-ground is felt. But when the mind once explores the idea of system, there is no escape from the postulate of a constitutive

unity into the datum even to make experience possible? And when this synthesis, this experience, is realized as a subjective fact, is the mind justified in viewing it as the communication of an objective reality, and in the positing of this reality? There can be but two points upon which an answer may be demanded. In positing a real, ontological world, intelligence is meeting a demand essential to the conservation of its interests. The positing is spontaneous and persistent. It is a preconscious and presolitional condition of the individual intelligence. The individual is in no wise concerned in the act of positing. He finds the positum on the ground when he as individual appears. He also finds intelligence what it is, and finds that knowledge, experience, is essentially bound up with conditions whose grounds lie back in the very nature of intelligence itself. He may, as Berkeley did, reduce his world to a system of ideas, and then make desperate shifts to maintain a formal cogency to the whole, but even if this were successful, the essential element would still be lacking, - namely, the

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unity. Thought-system involves thought-unity. A system of reals involves a real unity. Else there is no system, but a mere plurality. Only when the many find a common ground of coördination do they become a one. And when this system is real, the coörd. ground is real.

element of reality. The motive is witnessing itself in real factual positing, which positing is essential to intelligence. All ignoring of these motives, and setting up of hypotheses to pacify intelligence for the act, is an attempt of the individual to reconstruct fact, to satisfy the demands of intelligence for reality with individual conceptual creations. It creates fictions to take the place of the real factual setting in which the individual finds himself. All attempts which go out from concepts will advance no further than the conceptual order. Fact must be the point of departure, and the only fact given us is that which constitutes our datum. The motive is an indisputable fact of this datum, and its content when won must be posited as real. Some content the motive has, and a definite content. Some content must be won & it must be this definite, essential motive content. Whether the above given content is the essential one of the motive will depend upon the one test, - whether the content is now in opposition to the unity of intelligence, or in other words, whether the content with the concepts involved can be conceived, thought without involving contradiction. This test involves the closer consideration of three ideas:- the idea of causation; the idea of thing; and the idea of interaction. These must be raised to consistent concepts.

Logical fixing of the elements involved in thinking the idea of necessary connection of things.

Idea of Causation.

Concerning the idea of causation three questions may arise:- What is its source? What is essential to its content? What is the range of its application? These three questions will be noticed in the order given.

A possible answer to the question concerning the source of the idea could come from the side of apriorism. According to this view the idea is a ready-made mental factor and belongs to the stock of ideas with which intelligence begins its existence. Such a view of innate ideas has often been attributed to apriorism, but is true of it only in its crudest form. Descartes, however, left his own doctrine on this point unguarded from misunderstanding. The naive intuitionalist of to-day does the same. If it were the true answer to the question, the lack of a perfect accord among thinkers concerning the exact content of the idea would hopelessly involve its claim to universal validity in skepticism. If the idea be set up as a finished factor of intelligence, which such a view of innate ideas must do, it requires but little reflection to see that critical thinking must reject it entirely.

To grant that the idea has had a history and has passed through stages of development would suggest to some, forsooth, that the idea is but the product of generalization. Conjunctions observed among phenomena, striking uniformity of sequence +

a peculiar mental inclination to seek explanation for such events in some principles deeper than mere succession, are sufficient to account for the widespread belief in the reality of necessary connection. Hume's theory was essentially this. To show its weakness, it is necessary only to point out the logical circle in the reasoning brought forward to sustain it. The so-called product of generalization is itself a precondition to the generalizations. Were not the principle of necessary connection an essential principle of intelligence, an unlimited number of observations of conjunctions would never lead to the rise of the idea of necessary connection. Conjunctions would remain conjunctions, just what experience gave them. But aside from this, were one to attempt to disprove the presence of causation in our world, he would very soon find himself leaning upon the principle he would reject. Hume's work was done when he called attention to the fact that experience gave us antecedence and sequence merely.

A third view of the origin of the idea may be considered as standing between the two already noticed, and yet must be looked upon as essentially different from either. It has already been pointed out that intelligence posits things as causes. This positing is the expression of an essential demand of intelligence as we find it. It is made prior to the advent

of the individual as a self-conscious, self-directing thinker. It is not his positing. Also, when the individual has appeared upon the scene, the idea of causation is already there, in some form. Under reflection the idea becomes more and more the expression, in general form, of the ground upon which intelligence justifies its positing of a world of things. The beginnings of the idea in the individual consciousness lie so far back in the development of mind, that it is a fruitless task to seek the first occasion of its rise. Perhaps, the occasion is the observed conjunctions of changes in things. But when the idea arises, it is the mind's own expression, in general form, of necessity for the act of positing causes, for an act rising spontaneously and necessarily out of the nature of intelligence. Hence the rise of the idea does not precede the positing of causes, nor can we say the idea is given in consciousness simultaneous with the act of positing. Rather, the idea rises in the process in which intelligence becomes aware of itself and its implications. Hence the idea passes through stages of development, but it has its source in the essential content of intelligence, and is not derived from experience.

What is essential to the idea? In the first place, the time determination constitutes no essential element of its content.

Time is merely the form under which change is presented in experience. Experience gives us antecedence and sequence only as Hume showed. But the idea involves necessity, necessary connection, and this experience does not give, and cannot give, as Hume also pointed out. Hence while time is a form of experience and is restricted wholly to experience, the essential content of the idea of causation falls outside and beyond this limit. And what is true said of the time element is equally true of that of space. The essential of the causal idea is absolutely timeless and spaceless. It is only when we attempt to picture a relation absolutely unpicturable are we compelled to resort to the temporal relation. When we will picture anything we must abide by the necessary conditions of picturing, but in so doing thought contents must often undergo complete transformation.

That we must eliminate the time element from the idea is clear on logical grounds when we attempt to think the relation of cause and effect. According to the order of our perception the causal change precedes the change we term effect. A time has elapsed between the two perceptions, and we convey the same temporal relation into the changing things. But reflection points out that we have perceived change as product, but have not, and cannot perceive change as process, and that

causal efficiency is process and is continuous, not a sudden beginning. Causes and effects are located when the observed change enters, but this is purely arbitrary and uncritical. Even upon the grounds of science, e.g. by the aid of the microscope, we find ourselves compelled to bring cause and effect nearer together in time. But reflection demands that the temporal element absolutely disappear, and that cause and effect be posited as entering simultaneously into existence.

The element essential to the content of the idea is that of necessary dependence. But what sort of necessary dependence? Dependence may be a relation between thoughts or a relation between things, reals. A case of the former is the relation of a thought upon its logical ground, and is expressed in the law of sufficient reason as logically conceived. But the relation involved in the present consideration is that existing between reals, by which one reality sustains a relation of necessary dependence upon another. But we predicate the quality of reality to different sorts of objects of thought, two of which are concerned here. Substantial realities sustain among themselves this relation of necessary dependence. The dependence of one thing upon another, which we find intelligence affirming, is the dependence of one on the other for its being, and for being what it is, and so continuing to be. This dependence, which reflection must

lead all to affirm who posit a real world of things, and which is actually affirmed by naive thinking in some form, is that which finds its scientific expression in the law of sufficient reason, as metaphysically conceived, as set up by Leibnitz. As a demand for a real ground of the existence of a thing, and of its existence as it is, it must be viewed as rising necessarily in the nature of thinking, and therein must its validity be justified. But we also predicate reality of events, changes, occurrences, however brief of duration. These are real changes as given in experience, which the mind finds it impossible to look upon as related merely in time, but seeks to give a real, interdetermining relation by affirming the reality of a relation of necessary connection. Thus one change or event is the ground of another change or event. This relation the law of causation aims to express in affirming that every event must have its cause. Cause, properly speaking, is concerned only with changes, but changes which the mind is necessitated to posit as (as) changes in things, as causes. Only in a modified sense.

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1. The refusal of Schopenhauer to pass from change to cause, (Vierfache Wurzel d. S. v. G. - Cap. 4, II. abs. Satz vom Zureich. Grunde § 20,) as well as repeated affirmation of the essential nature of time element in causal idea, (§ 47 Satz. v. Z. G. and repeatedly in Cap 4. II. Vierfache Wurzel abs. S. v. G.,) and also

may we speak of changes as causes, although we may of other changes as effects. Intelligence cannot rest until it affirms real existences as permanent possibilities of producing and of suffering change.

But are these two sorts of reals essentially different? Rather, is not event, change but a mode of being, and therefore not to be considered and set up as distinct realities. The real is the changing being. We have not being and change, things and occurrences, but changing things, realities. Beyond this we are dealing with mere abstractions. What reality we have is of the nature of cause; they are permanent possibilities of manifesting change. The changes, events, occurrences, are but the manifestations of these causes, and metaphysically considered, must be viewed simply as modes of existence of reality. Here the analysis of the idea of causation runs directly to that of thing, considered as cause, which is reserved for treatment in the following chapter.

The sum of the foregoing is as follows: The only being we have

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the limiting of the range of its application to changes in the outer, material world, (§ 20 • Cap 4. II Welt als. W. I V. repeatedly,) have no higher ground of justification than consistency to an individual hypothesis.

is concrete activity. Our datum is process, its ground form is change, activity. All realities posited by intelligence, are posited as processes like our datum, or as causes, as permanent possibilities of action. But they are essentially active, and consequently are essentially real to intelligence. Should these posited realities cease to be active they would cease to exist for mind. But in experience these active things, these causes, are not perceived, but phenomena which the mind views as caused. These are changes as products. Instantly the mind posits realities producing and suffering change. These two realities are causally related, are bound up in a real relation of necessary connection. Although one change may be viewed as the occasion of the change called effect, the real relation is that of necessary connection between permanent realities, however these may be conceived. Leaving the further determination of the elements essential in our thinking the idea to the following chapter on interaction, we pass to notice the third question, concerning the range of application of the idea.

In pointing out that the elements of space and time are not essential to the idea of causation, it has not been shown that the idea may be valid in applying to realities transcending experience. It is given in experience, has its application to objects of space and time. Is it limited to these objects? Such is the prob-

been since Kant.

Here it must be observed that, although we posit causes only as occasioned by experience, it does not necessarily follow that causation is limited merely to space and time objects. True, there is in this no proof to the contrary; it simply leaves the question open for testimony of a higher nature. The causal relation is a relation of necessary dependence. It concerns being, always. What the nature of this being must be does not appear in the analysis of the idea. Surely not space and time-bound things if there be other kinds of reality. The relation of dependence for being, and being what it is, must be predicated of all existences. This is the content of the idea of causation in its general form. If an infinite regress be avoided it must be by positing a world grounded. This has already been formed an implication of a system of interaction, and intelligence must posit it to save itself. However inconceivable causa sui may be, it is equally certain we have the same difficulties in attempting to think an regression in infinitum. The causal idea represents a thought content which must find application to all reality, except its existence & nature be grounded in itself.

Idea of Thing.

The treatment of the idea of causation led to the idea of cause. We have now to carry the thought further in the consideration of things, viewed as one class of causes, but only in so far as a knowledge of their metaphysical nature is involved in reaching a definite and consistent idea of interaction.

The nature of things must be interpreted in the light of cause. Things are posited to be causes, and whatever else they may be, they cannot cease to be causes without ceasing to exist. Causes are agents, and exist in bringing forth their effects. From the point of view of the individual they may be considered as permanent possibilities of action, but in themselves they must exist only as active. They must be viewed as real centers of concrete activity itself. And in the determination of the idea of thing, every characteristic which does not accord with this fundimental one must be rejected as distinctive to the idea itself. On this ground is the theory of a substratum of reality in which properties and qualities inhere untenable in every form presented.

These causes, as posited, ceaselessly produce the objects in the conscious process, whose formula could be written, A-A-A-A-A-....., viz. the repetition of the same effect in successive intervals of time.

It is the one cause for many similar effects. How shall we think of the unity of such a cause? Not the fixed unity of changeless things, but the unity of an unchanging process. The fixedness is the fixedness of the law of its action, by which it can repeat the same effect. Such is the only unity cause can have.

Again, we saw that another class of mental objects of our contemplation, also viewed as effects, were more or less varied as they were given in succession, and yet all these were ascribed to one and the same causes. The formula for these would read, $A-A_1-A_2-A_3-\cdots\cdots$. Here rises a new problem. How shall we think of a cause the effects of which are so different? Intelligence has posited these causes out of its need to ground a manifoldness of phenomena in an identical agent, and yet the incessant change thinks on to defeat the end of the positing. The assumed changes of the mental objects (Vorstellungen) must be grounded in a real change (Veränderung) in the cause. As cause we have seen it can have but one kind of unity. And now as cause it can have but one kind of identity, the identity of the principle of its action. When this action is one of change, as viewed in its manifestations, the identity must be found in the identity of the principle of change. It is the only identity possible for organic bodies, as the smallest reflection will show. "First

the blade, then the ear, after that the full corn in the ear, but one and the same thing at every stage of the development, is the postulate, and this is possible only in the sense of a process whose change occurs according to a unitary principle.

Now it may be noticed in passing that, while the mental objects have the double determination of space and time, this fact does not warrant the assumption that their causes are likewise determined. Every attempt to conceive things as existing in real time and extended in real space involves the thinking act in contradiction. Only upon the ground that such contents cannot be thought are we justified in rejecting them, but such rejection is demanded in the interest of the unity of intelligence. The unity of things, posited to be causes of these mental objects, is a real demand of intelligence, before which the testimony of sense intuition cannot stand.

The fourth step in the positing of a world of things, suggests the last element of the idea to be noticed. We saw that intelligence things as related to each other in a system of interaction. The logical outcome of this fact is the affirmation of the interdependence of things. Things are given as interacting causes. They are not given as individuals, whose ground of

existence is to be found solely in themselves. They are given as members in a real system of interaction, and every member must be viewed as being what it is by virtue of its relation to others and the whole. So soon as we affirm the relation of interaction between things, just so soon must we view the nature of these things as determined thereby. An essential element, therefore, of the content of thing is the relation of necessary dependence. The ground of being is not wholly found in individual things, but in the system as well. Things, therefore, must be conceived as non-spatial and timeless causes, sustaining a constant relation of interaction, by which they all, taken together, constitute a system, a cosmos.

Idea of Interaction.

A system of interacting things is posited. These things are concrete centres of activity, are permanent causes. As such they are permanent existences. But the ground of being of these things is found in their relation to the entire system of interaction. So long, then, as things exist they are in interaction. This gives the idea of interaction a far deeper meaning than it ordinarily receives. With Hume, interaction was viewed merely as the acting of one thing upon another, which is no interaction at all. Seeing no ground of necessity for affirming it when not given in experience, he rejected it as an unwarranted assumption of mind under stress of habit.

In the first place interaction involves the joint activity of all realities concerned. One is not active and the other passive. They are all agents, or else there is no interaction. The element of passivity is contributed by uncritical thinking.

And this makes it plain that at least two causes co-operate in bringing forth an effect. For an effect is the joint product of what we call cause, and of that which is looked upon as suffering the effect. If the cause alone were active its effects would ever be the same whatever the nature of the

things suffering the effect might be.

When we pass from the view of occasional interaction to permanent interaction as an essential characteristic of our world of things, the idea becomes of central importance in a metaphysical theory. The ground of affirming the relation is far deeper than observed conjunctions of phenomena. There occasions when we affirm the presence of the relation in producing observed changes depend wholly upon the incident of perception. But the never ceasing interacting relation, unseen and incapable of being seen, is affirmed to keep our world of things from dropping into a mere aggregation of individuals. The individual has experience given him by intelligence and he finds critical reasons for affirming a relation, not perceived nor perceivable, but still an essential demand of intelligence.

The idea of interaction, then, is the idea of a ceaseless interrelation of realities constituting a system of activity. The realities are causes, but causes whose full nature is not reached considered apart from their relation of interaction to the rest of the system. It is permanently a characteristic of our idea of an outer world, without which it cannot be thought in its conceptual elements.

Conclusion.

Throughout the entire discussion of the idea of necessary connection, its bearing upon the problem of knowledge has been pointed out, but only incidentally in the treatment of a more immediate theme. It remains the present task of considering this side of the problem for itself, and chiefly in the pointing out of historic failures to evade the consequences of rejecting the idea of necessary connection from a world-view. They are all alike in one particular, in taking the hypothesis of the individual speculator as a sufficient substitute for an essential demand of intelligence. This results have this in common, that knowledge breaks down upon the hypothesis, and the mind is shut in to absurdity if not absolute scepticism. We notice but striking types.

Descartes' absolute separation of soul and matter forbade any and all interaction between them. Following out the implications of Descartes, and yet with an attempt to bridge the dualism involved, Geulincx set up his hypothesis of occasionalism. God, upon occasion of the physical antecedent produces its appropriate idea in the mind of the individual; and likewise upon occasion of the individual's volition, God produces the appropriate movement in the realm of matter. Here all inter-

action is repudiated, and in its place is affirmed a constant divine interference[1]. But this leads to absurdity and does not help knowledge. Knowledge seems to be one thing, but is in fact another. Here universal skepticism could easily enter. Things themselves must be declared purely hypothetical, as well as the existence of the divine being. The makeshift of Malebranche of a vision of all things in God, is equally insufficient and ruinous to a sure basis for knowledge, and need not be further considered.

The step which Berkley took swept things as well as persons, fellow intelligences, out of existence. Of course there could be no interaction. Our world of interacting things was reduced to a system of ideas produced by the divine being. Other intelligences were now posited in order to save the system from collapse, and God was supposed to cause like ideas in the minds of these fellow beings. Thus an efficient cause was provided for our world as a purely subjective effect in us, and at the same time, a certain provision was made by which all intelligences might have a duplicate world. but further than this the hypothesis

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1. Metaph. mss. - Octava Scientia § 32. - also Duodec. Sc. § 87-89.

could not go. The world was reduced to a sham. The ideas claimed to represent truth but were wholly false. The duplicate worlds could not take the place of a common world. The individual was wholly shut out from the world of his fellow. And in carrying the efficient agency back to the divine being, he is made the source of fraud and deception. Knowledge utterly fails to be knowledge upon the theory of Berkley.

One more instance, that of Leibnitz, remains to be noticed. Things exist. So do intelligences. But interaction, all communication between realities is excluded. Each monad mirrors the universe in itself. By immanent determination it unfolds out of its own nature its own world. There is a multiplicity of worlds of identical content and affirmed, but no common world. Pre-established harmony accounts for the sameness of experience in countless individuals, but the experience is worthless because that which gives it worth has been eliminated. Knowledge of a world loses all value when this world ceases to be, or becomes nothing more than a constant reminding of the implications of the individual soul.

All attempts to reject the fact of interaction must fail finally and solely upon the ground that knowledge is

essentially involved with it. If necessary connection of things be rejected, then our world of reality is at the same time rejected. Either the things are supposed to lie outside of us, but not in interaction with each other or in communication with the perceiving subject, which would give us an absolute dualism of thought and thing, or the thing-world is denied, and interaction with it, and we are thereby shut up with a sham world in our individual conscious process. Either and both hypotheses fail upon the ground of knowledge. But back of this, and upon ground too often overlooked, they fail because they cannot fill out the place of an essential motive-content which intelligence by the necessity of its nature is compelled to posit. Of the nature of this motive-content we have no need to speak further, only to allude, in closing this discussion, that the motive cannot be eliminated from thinking without doing violence to intelligence, and that the only legitimate course left for criticism is to seek to work this essential content into adequate conceptual expression.

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